



# CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

## 1. Chemical product and company identification

<b>Product name</b>	<b>Smoke Test®</b>
<b>Product code</b>	02105, PR02105
<b>Company name</b>	CRC Industries, Inc.
<b>Address</b>	885 Louis Dr. Warminster, PA 18974 US
<b>Telephone</b>	
<b>General Information</b>	1-215-674-4300
<b>Technical Assistance</b>	1-800-521-3168
<b>Customer Service</b>	1-800-272-4620
<b>24-Hour Emergency (CHEMTREC)</b>	+86 532 83889090 (China) 1-703-527-3887 (International)
<b>Website</b>	www.crcindustries.com

### Recommended use and Limitations on use

<b>Recommended use</b>	Smoke detector tester
<b>Issue date</b>	11-04-2014

## 2. Hazards identification

**Emergency overview** Extremely flammable aerosol. Pressurized container may explode when exposed to heat or flame. Heat may cause the containers to explode. Causes eye irritation. Repeated exposure may cause skin dryness or cracking.

### GHS-classification

<b>Physical hazards</b>	Aerosols	Category 1
<b>Health hazards</b>	Serious eye damage/eye irritation	Category 2B
<b>Environmental hazards</b>	Not classified.	
<b>Other hazards which do not result in classification</b>	Not classified.	

### Label elements

#### Pictograms



### GHS-labeling

#### Signal word

Danger

#### Hazard statement

Extremely flammable aerosol. Pressurized container: May burst if heated. Causes eye irritation.

#### Precautionary statement

##### Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling.

##### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

##### Storage

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

##### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Physical and chemical hazards

Extremely flammable aerosol. Pressurized container: May burst if heated.

#### Health hazards

Causes eye irritation. Repeated exposure may cause skin dryness or cracking.

#### Environmental hazards

Not classified.

#### Other hazards

Repeated exposure may cause skin dryness or cracking.

### 3. Composition/information on ingredients

Substance/mixture	Mixture		
Chemical name		CAS Number	Concentration (%)
Liquefied Petroleum Gas		68476-86-8	60 - 70
Ethanol		64-17-5	20 - 30

### 4. First aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Immediately give 2 glasses of water. If swallowed, induce vomiting immediately as directed by medical personnel. Rinse mouth.
<b>Most important symptoms and health effects</b>	Irritation of eyes and mucous membranes. Exposed individuals may experience eye tearing, redness, and discomfort. Repeated exposure may cause skin dryness or cracking.
<b>Expected acute symptoms and delayed symptoms</b>	Irritation of eyes and mucous membranes. Exposed individuals may experience eye tearing, redness, and discomfort. Repeated exposure may cause skin dryness or cracking.
<b>Personal protection for first-aid responders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
<b>Notes to physician</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### 5. Fire-fighting measures

<b>Extinguishing media</b>	Powder. Alcohol resistant foam. Carbon dioxide (CO2).
<b>Extinguishing media to avoid</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards</b>	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special fire fighting procedures</b>	In case of fire: Stop leak if safe to do so. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Protection of fire-fighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>General fire hazards</b>	Extremely flammable aerosol.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**Clean-up methods and materials and containment measures** Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.

**Prevention of secondary hazards** Not assigned.

## 7. Handling and storage

### Handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not re-use empty containers. Avoid contact with eyes. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid prolonged exposure. Observe good industrial hygiene practices.

### Storage

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Exposure limits

Not available.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Control parameters

Follow standard monitoring procedures.

### Engineering measures

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

### Personal protective equipment

#### Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

#### Hand protection

Wear protective gloves such as: Nitrile. Neoprene.

#### Eye protection

Wear safety glasses with side shields (or goggles).

#### Skin and body protection

Wear suitable protective clothing.

### Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Liquid.

#### Form

Aerosol.

#### Color

Colorless.

### Odor

Alcoholic.

### pH

Not available.

### Melting point/freezing point

-173.4 °F (-114.1 °C) estimated

### Boiling point, initial boiling point, and boiling range

172.9 °F (78.3 °C) estimated

### Flash point

56 °F (13.3 °C) Tag Closed Cup

### Flammability limit - lower (%)

3.3 % estimated

### Flammability limit - upper (%)

19 % estimated

### Explosive limit - lower (%)

Not available.

### Explosive limit - upper (%)

Not available.

### Vapor pressure

3320.9 hPa estimated

### Vapor density

> 1 (air = 1)

### Relative density

0.63 estimated

### Density

Not available.

**Solubility(ies)**

<b>Solubility (water)</b>	Complete.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	363 °F (183.9 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Evaporation rate</b>	Very fast.

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
<b>Incompatible materials</b>	Nitric acids. Strong acids. Chromium trioxide. Potassium chlorate. Potassium permanganate. Peroxides. Chromates. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Acrolein.

**11. Toxicological information**

**Acute toxicity** Causes eye irritation.

Product	Species	Test Results
Smoke Test®		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	68.7877 g/kg estimated
<i>Inhalation</i>		
LC50	Rat	27515.0625 mg/l, 4 hours estimated
<i>Oral</i>		
LD50	Rat	21261.3828 mg/kg estimated
LDL0	Human	4815.1362 mg/kg estimated

**Routes of exposure** Inhalation. Eye contact.

**Symptoms** Irritation of eyes and mucous membranes. Exposed individuals may experience eye tearing, redness, and discomfort. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Repeated exposure may cause skin dryness or cracking.

**Skin corrosion/irritation** Repeated exposure may cause skin dryness or cracking.

**Serious eye damage/eye irritation** Causes eye irritation.

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. IARC has classified ethanol in alcoholic beverages as Group 1 (carcinogenic to humans). Ethanol alone has not been evaluated for carcinogenicity by IARC.

**Toxic to reproduction** Ethanol is known to cause developmental effects at levels that cause maternal toxicity. Regular consumption of ethanol during pregnancy at high dosages increases the risk of congenital anomalies. Lower intake levels and binge patterns of drinking have been associated with fetal death or subtle developmental anomalies in some studies.

**Specific target organ toxicity following single exposure** Not classified.

**Specific target organ toxicity following repeated exposure** Not classified.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**Chronic effects**

Ethanol is metabolized to acetaldehyde and acetic acid which in large quantities result in metabolic acidosis and CNS depression. May cause damage to the liver.

**12. Ecological information****Ecotoxicological data**

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae (Chlorella kessleri)	1450 mg/l
Crustacea	EC50	Water flea (Daphnia magna)	11.2 mg/l, 48 hours 7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	15300 mg/l, 96 hours > 100 mg/l, 96 hours > 100 mg/l, 96 hours
		Rainbow trout, donaldson trout (Oncorhynchus mykiss)	13000 - 15300 mg/l, 96 hours

**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulation**

No data available.

**Bioaccumulative potential****Octanol/water partition coefficient log Kow**

Ethanol -0.31

**Mobility in soil**

This product is miscible in water.

**Other hazardous effects**

None known.

**13. Disposal considerations****Residual waste**

Dispose of in accordance with local regulations.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

**Recommended methods for final destination****Local disposal regulations**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

**14. Transport information****CNDG**

**UN number** UN1950  
**UN proper shipping name** AEROSOLS  
**Transport hazard class(es)**  
**Class** 2  
**Subsidiary risk** -  
**Packing group** -

Read safety instructions, SDS and emergency procedures before handling.

**IATA**

**UN number** UN1950  
**UN proper shipping name** Aerosols, flammable, Limited Quantity  
**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Packing group** Not applicable.  
**Environmental hazards** No.  
**ERG Code** 10L

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Other information**

<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

**IMDG**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, LIMITED QUANTITY
<b>Transport hazard class(es)</b>	
<b>Class</b>	2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

**CNDG; IATA; IMDG****15. Regulatory information****International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Applicable regulations**

This safety data sheet conforms to the following laws, regulations and standards:  
 Regulations on the Control over Safety of Dangerous Chemicals  
 Regulations on Labor Protection in Workplaces Where Toxic Products Are Used  
 Measures for the Safe Use of Chemicals in Workplaces  
 Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)  
 General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009 )  
 Packing Symbol of Dangerous Goods(GB190-2009)  
 Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)

**General Rule For Classification and Hazard Communication of Chemicals (GB 13690-2009) and Dangerous Chemical Products**

Ethanol (CAS 64-17-5)

**Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)**

Not listed.

**National Catalogue of Hazardous Wastes**

Ethanol (CAS 64-17-5)

**Restricted Import/Export Toxic Chemical List (MEP and GCA Announcement No. 2008-66, Dec. 1, 2008, amended through MEP and Customs Notice No. 2011-91, December 28, 2011)**

Not regulated.

**Classification and code of dangerous goods (GB6944-2005)**

Regulated.

**List of Dangerous Goods (GB 12268-2005)**

Regulated.

**The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)**

Regulated.

**General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)**

Regulated.

**Regulations on Road Transport of Dangerous Goods**

Regulated.

**Regulations on Rail Road Transport of Dangerous Goods**

Regulated.

**UN Recommendations on the Transport of Dangerous Goods (UN RTDG)**

Regulated.

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**16. Other information****References**

EPA: AQUIRE database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents

**Further information**

CRC # 418

**Disclaimer**

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